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CITY AND COUNTY OF SAN FRANCISCO  
10 HEATHER FONG, in her official capacity,  
JOHN KEESOR, MICHELLE ALVIS and  
11 PAUL MORGADO

12 UNITED STATES DISTRICT COURT  
13  
14 NORTHERN DISTRICT OF CALIFORNIA

15 KATHLEEN ESPINOSA, as a personal  
representative of the Estate of decedent ASA  
SULLIVAN; A.S., by and through his  
16 Guardian ad Litem, NICOLE GUERRA,

17 Plaintiffs,

18 vs.

19 CITY AND COUNTY OF SAN  
FRANCISCO, HEATHER FONG, in her  
20 capacity as Chief of Police; JOHN KESSOR,  
MICHELLE ALVIS and PAUL MORGADO,  
21 et al.,

22 Defendants.

Case No. C06-04686 JSW

**DEFENDANTS' MOTION IN LIMINE NO. 4  
TO EXCLUDE TESTIMONY OF PLAINTIFF'S  
EXPERT WITNESS ROBERT JOHNSON;  
DECLARATION OF PETER J. KEITH IN  
SUPPORT, WITH EXHIBITS**

Hearing Date: April 1, 2013  
Time: 2:00 p.m.  
Place: Courtroom 11, 19th floor,  
450 Golden Gate

Trial Date: December 2, 2013

## INTRODUCTION

Plaintiffs have offered Robert Johnson as an expert witness, to give his opinion to the jury regarding the amount of an appropriate award of **non-economic** damages for A.S.'s loss of Sullivan's care, comfort, and society. The Court should preclude Plaintiffs from doing so. Courts have overwhelmingly rejected such testimony from Johnson and similar individuals who purport to quantify **non-economic** damages, and excluded such testimony from trial. Johnson's testimony is not helpful to the finder of fact, it also fails to satisfy the requirements of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and the controversy surrounding his methods will require too much time and distract from the actual issues in this case.

## BACKGROUND

Johnson's opinion addresses the value of the **non-economic** loss of Sullivan's care, comfort, and society to his survivors: "My primary task was to frame, in economic terms, the range a jury should use in valuing the loss to the family of Mr. Asa Sullivan's society, companionship, etc." (Report, p. 1 (Keith Decl. Exh. A).)<sup>1</sup>

Johnson's opinion of the proper range for a non-economic damages award is based on what he calls a "willingness to pay" approach. Johnson has reviewed studies that examine government regulations aimed at reducing the risk of death or injury and wage premiums paid to workers in risky industries; the studies use this data to come up with a monetary figure for the value of a life. Johnson gives an example of how the "willingness to pay" approach works. (Report, p. 8.) Johnson posits a town of 20,000 where a toxin was present that would cause a fatality rate of 3 out of 20,000. Townspeople are asked how much they would pay to reduce the toxin so that the risk is 1 out of 20,000. If each person is willing to pay an average of \$200 to reduce the risk from 3 of 20,000 to 1 of 20,000, thereby saving those two lives, then the cost of the regulation is  $20,000 \times \$200 = \$4$  million, and the value of a life is  $\$4 \text{ million} / 2 \text{ lives} = \$2 \text{ million}$ . This approach is completely indifferent to the personal characteristics of the life saved. (Report, p. 8 ("It could be the local vagrant bum, an infant, spouse, or the local version of Dr. Jonas Salk."))

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<sup>1</sup> Johnson does not offer any opinion about economic damages in this case, such as an estimate of Sullivan's future financial support for A.S. Plaintiffs are not pursuing any such claim in this case.

Johnson presents the low-end and high-end figures that he has taken from different studies, as the proper “range” for an award of non-economic damages for A.S.’s loss of care, comfort, and society: “It is my opinion that the range a jury should use in valuing the loss to the family of his society, companionship, etc., is from \$3,200,000 to \$11,500,000. This constitutes a framework for measuring the loss to the survivors. It assumes that the quality of the relationship between Asa Sullivan and his mother Kathleen Espinosa and son [A.S.]<sup>2</sup> at least meets the minimum standards of the trier of fact. For purposes of this report, the concept is referred to as the loss of human value of life.” (Report, p. 5.) Johnson does not explain “the minimum standards of the trier of fact.”

Johnson’s opinions concern the “average” value of a human life, completely independent and unrelated to Sullivan’s personal characteristics. His opinions are not based on any facts about the qualities of Sullivan’s relationship with his son, plaintiff A.S.<sup>3</sup>

## DISCUSSION

### I. JOHNSON’S TESTIMONY WILL NOT HELP THE JURY

Federal Rule of Evidence 702 states in pertinent part:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:  
 (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;

Fed. R. Evid. 702(a). This prong of the Rule 702 standard, and Rule 401, requires testimony to assist the trier of fact to understand the evidence or to determine a fact in issue. *Daubert*, 509 U.S. at 541.

Johnson’s testimony will not assist the trier of fact because it is the exclusive responsibility of the jury to determine the appropriate amount of compensation for non-economic damages, and no witness is permitted to give his or her opinion on that matter. “One of the most difficult tasks imposed upon a jury in deciding a case involving personal injuries is to determine the amount of money the plaintiff is to be awarded as compensation for pain and suffering. No method is available to the jury by which it can objectively evaluate such damages, and no witness may express his subjective opinion

<sup>2</sup> We substitute A.S. for the true name of Mr. Sullivan’s minor child.

<sup>3</sup> Johnson does not purport to state an opinion regarding the appropriate amount of an award of non-economic damages to the other plaintiff in this action, the Estate of Sullivan. Therefore, his opinions have no bearing on the Estate’s separate non-economic damages claim.

1 on the matter.” *Beagle v. Vasold*, 65 Cal.2d 166, 172 (1966). For that reason, among others,  
 2 California courts have excluded opinions like Johnson’s that purport to quantify non-economic  
 3 damages based on a “willingness to pay” theory. Just as no judge may give a California jury a  
 4 quantitative method for determining pain and suffering damages, no expert may supply a formula for  
 5 computing the value of life and, by extrapolation, the monetary figure that would properly compensate  
 6 for non-economic losses. *Loth v. Truck-A-Way Corp.*, 60 Cal.App.4th 757, 768 (1998). Federal  
 7 courts agree. “[T]he jury will have the knowledge and life experience to determine a fair damages  
 8 award based upon the testimony received at trial. [Citations.] As in any other wrongful death case,  
 9 this factual determination is most appropriately left to the province of the jury.” *Estate of DuBose v.*  
 10 *City of San Diego*, 2002 WL 34408963, at \*2 (S.D. Cal. 2002) (excluding Johnson’s testimony).

11 Johnson’s opinion also fails to help the jury because Johnson’s recommendation for the amount  
 12 of an award of non-economic damages for loss of care, comfort, and society is based on an “average”  
 13 person. His opinion is not based on the specific relationship between Sullivan and A.S., and it is not  
 14 based on Sullivan’s prospects for providing care, comfort, and society to A.S. in the future. But the  
 15 jury’s award of non-economic damages at this trial must be based on the jury’s review of the particular  
 16 facts about the relationship between Sullivan and A.S., the character and habits of Sullivan, and the  
 17 factors that pertained to Sullivan’s ability to provide care, comfort, and society to A.S. in the future.  
 18 *Corder v. Corder*, 41 Cal. 4th 644, 661-63 (2007) (“[F]actors relevant in assessing a claimed loss of  
 19 society, comfort, and protection may include the closeness of the family unit at issue, the warmth of  
 20 feeling between the family members, and the character of the deceased....”); *see also Powers v.*  
 21 *Sutherland Auto Stage Co.*, 190 Cal. 487, 491 (1923) (“In view of the fact that the [wife] and deceased  
 22 had been living apart, nothing could have been awarded to [her] for the loss of the society, comfort,  
 23 and protection of the deceased.”); *Benwell v. Dean*, 249 Cal.App.2d 345, 349 (1967) (“evidence of the  
 24 nature of the personal relationship that existed between the decedent and the beneficiaries of a  
 25 wrongful death action has a bearing on the compensation for loss of society, comfort and protection,  
 26 and is therefore ordinarily admissible in such an action”); *id.* at 350 (“if it is proper for the beneficiary  
 27 to produce evidence of the attitude and affection on the part of the decedent for the beneficiaries ...  
 28 then defendant should properly be able to rebut or negate such evidence”). Johnson’s opinions

therefore are untethered to the relevant facts about damages. That lack of connection to the relevant facts is another factor that has led federal courts to conclude that the opinions of Johnson and similar opinion witnesses are unhelpful to the jury. *See, e.g., Estate of DuBose*, at \*2 (“Johnson’s proposed testimony will not assist the jury reach a decision. The value of DuBose’s life depends on his particular facts (including health, history, relationships, career, etc.), but this expert gives a range spanning six million dollars that purportedly applies to ‘all’ individuals.”); *Saia v. Sears Roebuck and Co., Inc.*, 47 F. Supp. 2d 141, 146 (D. Mass. 1999) (expert provided only an arbitrary guide about a “statistically average person,” but jury can reach its own calculation); *Sullivan v. United States Gypsum Co.*, 862 F. Supp. 317, 321 (D. Kan. 1994) (willingness to pay methodology did not take into account any facts of the particular plaintiff, thus, “simply fails in any real terms to provide a measure of loss”).

Finally, it would be unfairly prejudicial under FRE 403 to permit Johnson to offer these substantial figures to the jury, for the value of an “average life.” California courts have found that this reason alone supports excluding “willingness to pay” testimony. “By urging the jury to rely upon a baseline value supported by factors having nothing to do with this plaintiff’s individual condition, Smith’s testimony created the possibility of a runaway jury verdict.” *Loth*, 60 Cal.App.4th at 768. Just as counsel are not permitted to refer to the size of verdicts in other cases in closing argument, an expert should not be permitted to present to the jury dollar figures that (wrongly) suggest some kind of officially accepted range for an appropriate award of non-economic damages. *Id.* at 767.<sup>4</sup>

## II. JOHNSON’S OPINION ALSO FAILS TO MEET THE *DAUBERT* TEST

A court acts as the “gatekeeper” to screen out “junk science” that is not “reliable.” *Domingo v. T.K.*, 289 F.3d 600, 605 (9th Cir. 2002). In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 589-90 (1993), the Supreme Court emphasized that, under Rule 702, “[t]he subject of an expert’s testimony must be ‘scientific . . . knowledge.’” In order to qualify as “scientific knowledge,” an expert’s inference or assertion “must be derived by the scientific method,” *id.*, and an expert’s

<sup>4</sup> The *Loth* case did not need to reach the issue whether “willingness to pay” was sound science, because of the many other reasons why this testimony was inadmissible as a matter of law. *Loth*, 60 Cal.App.4th at 766 n.7. This Court need not reach that issue either to conclude that Mr. Johnson’s testimony is inadmissible.

1 testimony is not admissible under Fed. R. Evid. 702 unless “the reasoning or methodology underlying  
 2 the testimony is scientifically valid.” *Id.* at 592-93. Moreover, whether an expert’s evidence is reliable  
 3 depends upon such factors as whether the technique can be tested, whether it has been subjected to  
 4 peer review and publication, and whether it is generally accepted in the relevant scientific community.  
 5 *Id.* at 593-94. Considering these factors, federal courts have concluded that “willingness to pay”  
 6 testimony does not meet the *Daubert* standard:

7           Attempts to quantify the value of human life have met considerable criticism in  
 8           the literature of economics as well as in the federal court system. Troubled by  
 9           the disparity of results reached in published value-of-life studies and skeptical  
 10           of their underlying methodology, the federal courts which have considered  
 11           expert testimony on hedonic damages in the wake of *Daubert* have unanimously  
 12           held quantifications of such damages inadmissible.

13 *Smith v. Ingersoll-Rand Co.*, 214 F.3d 1235, 1245 & n.22 (10th Cir. 2000) (collecting cases).

14           Because Plaintiffs have persisted in designating Johnson as an expert in the face of this law,  
 15 Defendants were forced to retain a rebuttal expert, Dr. Margo Ogus. Dr. Ogus’s report is attached  
 16 hereto (Keith Decl. Exh. B). Dr. Ogus’s report addresses many of the logical and methodological  
 17 shortcomings of Johnson’s “willingness to pay” theory. Other federal court decisions have found  
 18 these shortcomings more than enough reason to exclude Johnson’s testimony. They include:

19           1.       “Value of life estimates are derived from the results of studies that are entirely focused  
 20 on other objectives.” (Ogus Report, p. 2.) The cost of safety regulations and wage premiums have  
 21 nothing to do with the value of a particular life or the facts about how survivors are affected by the  
 22 loss of that life. And the connection between safety measures and high-risk jobs, and the value of a  
 23 known human life, is speculative. As one court rhetorically asked, do people not wear seat belts  
 24 “because they value life less or because they simply do not think they will get into an accident?”  
 25 *Kurncz v. Honda North Am., Inc.*, 166 F.R.D. 386, 389 (W.D. Mich. 1996) (criticizing model for  
 26 unrealistic assumptions and finding testimony inadmissible).

27           2.       “Unfortunately, as economists in the role of expert witnesses we need to speak from our  
 28 expertise and there is no factual or foundational basis on which to testify regarding these **non-  
 pecuniary** damages.” (Ogus Report, p. 5 (emphasis added).) Unlike other types of economic  
 testimony proffered on the issue of pecuniary damages, estimates of non-economic damages lack



1 testability, since no retrospective validation is possible. *See, e.g., Estate of DuBose*, 2002 WL  
 2 34408963, at \*2 (“The validity of the results of the surveys cannot be verified because, by definition, it  
 3 purports to measure an intangible that is not amenable to analytical precision.”).

4 3. “Contrary to Mr. Johnson’s statement, there is no consensus, no validation, and no  
 5 standard recognized by economists for placing a value on human life.” (Ogus Report, p. 5; see also  
 6 pp. 3-4.) Mr. Johnson’s methodology is hardly accepted in the field. “Attempts to quantify the value  
 7 of human life have met considerable criticism in the literature of economics as well as in the federal  
 8 court system.” *Smith*, 214 F.3d at 1245. “[T]he entire process of selecting and adjusting willingness-  
 9 to-pay data has proved unreliable because of the widely divergent views among economists  
 10 concerning what does and does not constitute a sound study.” *Ayers v. Robinson*, 887 F. Supp. 1049,  
 11 1061 (N.D. Ill. 1995).

12 4. “The various results of these studies do not provide a ‘statistical floor’ or even a range  
 13 of reasonable outcomes.” (Ogus Report, p. 4.) The “range” presented by Mr. Johnson is simply low-  
 14 end and high-end results of different studies. The range is so wide that it indicates a lack of reliability.  
 15 Moreover, there is no basis for Mr. Johnson’s further logical leap: to conclude that the low-end study  
 16 should define the minimum award and the high-end study should define the maximum award, and that  
 17 it would be economically sound for the jury to pick a figure in between based on its evaluation of the  
 18 facts at trial. That suggests a precision that simply does not exist. *E.g., Ayers*, 887 F. Supp. at 1063  
 19 (“[I]t is frankly bogus to massage those numbers, as both [publications] *Hedonic Damages* and  
 20 *Plausible Result* have done, to create a deceptive appearance of precision rather than the true picture of  
 21 an enormous spread in ‘value.’”).

22 This testimony is not reliable and should be excluded.

23 **III. THE COURT SHOULD EXCLUDE THIS TESTIMONY UNDER FRE 403 BECAUSE**  
 24 **IT IS ULTIMATELY A DISTRACTION FROM THE ISSUES IN THIS CASE**

25 Rule 403 provides that the court “may exclude relevant evidence if its probative value is  
 26 substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the  
 27 issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence.”  
 28 Fed. R. Evid. 403. Whatever the merits of Johnson’s willingness to pay approach, one fact is beyond

1 dispute: it is controversial. If Johnson's testimony were admitted, this controversy would have to be  
2 vetted at length before the jury, resulting in delay, waste of time, and confusion.

3 This is one of the reasons the *Kurncz* court excluded this type of testimony: "Where there is so  
4 much flux in the applicable 'science', much time will be spent debating its merits. Where the case  
5 itself does not turn on the issue, jurors traditionally have done without the evidence, and the Court will  
6 be instructing the jurors that they need not accept any expert's opinion anyway, the time will not be  
7 well spent. The methodology debate may simply confuse the issues." *Kurncz*, 166 F.R.D. at 390.

8 The jury's time would be better spent addressing the genuine issues in this case. Should the  
9 jury reach the issue of damages for loss of Sullivan's care, comfort, and society, it will simply do as  
10 other juries have always done regarding non-economic damages, and independently apply its common  
11 sense and collective judgment in fixing the appropriate amount of non-economic damages.

12 Dated: March 4, 2013

13 DENNIS J. HERRERA  
14 City Attorney  
15 BLAKE P. LOEBS  
16 Chief of Civil Rights Litigation  
17 PETER J. KEITH  
18 Deputy City Attorney

19 By: Peter J. Keith  
20 PETER J. KEITH

21 Attorneys for Defendants  
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**DECLARATION OF PETER J. KEITH**

I, Peter J. Keith, declare as follows:

1. I am a Deputy City Attorney assigned to this matter as counsel for the Defendants. I have personal knowledge of the contents of this declaration, and, if called upon to testify, I could and would testify competently to the contents of this declaration.

2. Attached as Exhibit A is a true and correct copy of Mr. Johnson's report disclosed by plaintiffs in this action, including the report only but not the C.V., testimony list, etc.

3. Attached as Exhibit B is a true and correct copy of Dr. Ogus's report disclosed by defendants in rebuttal of Mr. Johnson in this action, including the report only but not the C.V., testimony list, etc.

I declare under penalty of perjury pursuant to the laws of the State of California that the foregoing is true and correct.

Executed March 4, 2013, at San Francisco, California.

/s/ Peter J. Keith  
PETER J. KEITH

**Motion in Limine 4**  
**EXHIBIT A**

Robert W. Johnson & Associates

FORENSIC ECONOMISTS

May 1, 2008

Mr. Ben Nisenbaum  
Law Offices of John L. Burris  
Airport Corporate Centre  
7677 Oakport Street, Suite 1120  
Oakland, CA 94621

Re: Espinosa, et al. v. City and County of San Francisco, et al.

Dear Mr. Nisenbaum:

Pursuant to Rule 26 of the Federal Rules of Civil Procedure, please find the following expert witness report.

Opinions:

My primary task was to frame, in economic terms, the range a jury should use in valuing the loss to the family of Mr. Asa Sullivan's society, companionship, etc. This opinion is set forth in my *Human Value of Life Economic Impact Report*, attached as Exhibit "A". This economist reserves the right to amend this opinion based upon more current or relevant data and evidence admitted at the time of trial.

1. Data Considered:

My opinions are based in part on my experience, training and knowledge as a forensic economist. In forming my opinions I have reviewed the following documents:

- i. Plaintiff's Responses to Defendant City's First Set of Special Interrogatories, dated 12/13/2007;
- ii. Responses to Special Interrogatories from the City & County of San Francisco to Kathleen Espinosa, Set Two, dated 2/27/2008;
- iii. Responses to Special Interrogatories from the City & County of San Francisco to Nicole Guerra, Guardian Ad Litem for A.S., Set One, dated 2/28/2008;
- iv. Deposition of Sangh Sullivan, dated 12/18/2007;
- v. Deposition of Nicole Guerra, dated 1/18/2008;
- vi. Deposition of Kathleen Espinosa, dated 1/18/2008;

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- vii. Federal Jury Practice and Instructions 85.21;
- viii. Woods, E.A. and Metzger, C.B., "America's Human Wealth: The Money Value of Human Life", New York, Kelly, 1927.  
Dublin, L. and Lotka, A., "The Money Value of a Man", New York Press, 1940;
- ix. Gillette, C.P. and Hopkins, T.D., "Federal Agency Valuations of Human Life: A Report to the Administrative Conference of the United States", April 1, 1988 - March 30, 1989;
- x. Schelling, T.C., "The Life You Save May Be Your Own", Problems in Public Expenditure, Brookings Institute, 1968;
- xi. Miller T., "The Plausible Range for the Value of Life", Journal of Forensic Economics, Vol.3, No.3, 1990;
- xii. Viscusi, K., "The Value of Life: Estimates with Risks by Occupation and Industry", Economic Inquiry, Vol. 42, No. 1, January 2004.

## 2. Exhibits

I have not yet created or prepared any exhibits.

## 3. Qualifications

A summary of my qualifications and recent publications are attached as Exhibit "B".

## 4. Compensation

\$450.00 per hour.

## 5. Prior Expert Testimony

A listing of my Deposition and Trial Testimony over the past four years is attached hereto as Exhibit "C".

May 1, 2008  
Rule 26 Document  
Page 3 of 3

Sincerely,

ROBERT W. JOHNSON & ASSOCIATES

By: 

Robert W. Johnson, President  
Enclosures

**Exhibit "A"**

**LOSS OF  
HUMAN VALUE OF LIFE**

Robert W. Johnson & Associates

4984 El Camino Real Suite 210 Los Altos, CA 94022



Robert W. Johnson & Associates

FORENSIC ECONOMISTS

May 1, 2008

Mr. Ben Nisenbaum  
Law Offices of John L. Burris  
Airport Corporate Centre  
7677 Oakport Street, Suite 1120  
Oakland, CA 94621

Re: Espinosa, et al. v. City and County of San Francisco, et al.

Dear Mr. Nisenbaum:

I have reviewed the information that was given to Robert W. Johnson & Associates regarding the death of Asa Sullivan. I have made an extensive review of the relevant economic literature regarding the economic guidelines on the human value of life. My opinion, based on using generally accepted methods of economic analysis relied upon by economists in this field, is set forth below.

It is my opinion that the range a jury should use in valuing the loss to the family of his society, companionship, etc., is from \$3,200,000 to \$11,500,000. This constitutes a framework for measuring the loss to the survivors. It is assumed that the quality of the relationship between Asa Sullivan and his mother Kathleen Espinosa and son Asa Sullivan, Jr., at least meets the minimum standards of the trier of fact. For purposes of this report, the concept is referred to as the loss of human value of life.

If I can be of further assistance, please call me.

Very truly yours,



Robert W. Johnson  
President

**HUMAN VALUE OF LIFE ECONOMIC IMPACT REPORT**  
**Re: Espinosa, et al. v. City and County of San Francisco, et al.**

**Name:** Mr. Asa Sullivan

**Date of birth:** September 8, 1980

**Age at date of death:** 25

**Gender:** Male

**Date of death:** June 6, 2006

**Date of valuation:** May 1, 2008

**Survivors:** Kathleen Espinosa – Mother  
Asa Sullivan, Jr. – Son

**State of Jurisdiction:** Federal

This wrongful death case is being tried under Federal law.

This report quantifies the general damages of the loss to the survivors. It does not include any economic damages for lost support.

The applicable part of the FJPI 85.21 which is pertinent to this case is the following: "You may also award damages as compensation for loss of love, companionship, comfort..."<sup>1</sup>

**HUMAN VALUE OF LIFE ECONOMIC IMPACT REPORT**  
**Re: Espinosa, et al. v. City and County of San Francisco, et al.**

**DISCUSSION**

The field of economics has a long history of applying the analytical techniques and methodologies of statistical and economic analysis in attempting to determine the value of human life. One of the earliest economic methodologies, appearing in 1927<sup>2</sup>, was called Human Capital. This methodology basically stated the total value of life is equivalent to the amount of money you make. Yet economists have long recognized that this definition of the total value of human life is inadequate and incomplete. As stated in Federal Agency Valuations of Human Life,

"Human life has value not simply because of the ability of humans to produce goods that have market values (a function that does permit some measure of human life, i.e., Human Capital) but also because life generates additional value less susceptible to quantification. Within this category lie such factors as community, friendship..."<sup>3</sup>.

A simple attempt to apply this methodology to plaintiffs such as homemakers, retirees and children quickly and clearly demonstrates the significant shortcomings in this methodology.

To calculate the dollar value society places on the non-wage-loss/non-financial portion of life, or in economic parlance, the societal intangible human value of life, economists in 1968 started to use the economic methodology called Willingness-to-Pay<sup>4</sup>. The Willingness-to-Pay (WTP) methodology is designed to provide a statistically relevant measure of how much, in dollar terms, this society values life. It is basically how much people are willing to pay (or willing to give up in dollars) to avoid an increase in the risk of death. The summing of this measure across all people provides an estimate, to a reasonable degree of economic certainty, of the intangible human value of life. WTP estimates are primarily derived from statistical analysis of labor markets or by using sophisticated consumer surveys.

Simply put, the WTP is an econometric way of placing a dollar-value on an intangible (the human value of life) for which there is no replacement cost. For this report the loss of care, companionship, society, etc. is called the loss of the intangible human-value-of life.

**HUMAN VALUE OF LIFE ECONOMIC IMPACT REPORT**  
**Re: Espinosa, et al. v. City and County of San Francisco, et al.**

A simple example of the WTP economic methodology can be illustrated with the following scenario. Let us assume there is a toxin in a town of 20,000 people causing a fatality rate of 3 people per 20,000. The toxin can be reduced to the point where the fatality rate is only 1 person out of 20,000, thus saving 2 lives. The townspeople are asked, "How much are they willing to pay to save these two lives?" It is important to note that the townspeople recognize there is no way of knowing in advance whose lives are going to be saved. It could be the local vagrant bum, an infant, spouse, or the local version of Dr. Jonas Salk. All that remains is the intangible human value of life. Although there was some variation, the average amount each citizen was willing to pay was \$200. Consequently, since the average citizen was willing to pay \$200 for this reduction in the rate of death, then the total Willingness-to-Pay would be \$4,000,000 and the intangible human value of life per person saved was \$2,000,000.

This economic methodology (WTP) has in the past 20+ years been the subject of rigorous critical analysis and validation. The Willingness-to-Pay methodology has generated over 66 studies, journal articles, reports, etc., by economists. As a result of such thorough and extensive analysis, the Willingness-to-Pay economic methodology has become the recognized standard for quantifying the loss of care, comfort, society, consortium, etc. - the intangible human value of life.

Among the many published studies, two prominent analyses on the Human Value of Life are (1) "The Plausible Range for the Value of Life", by Dr. T. Miller<sup>5</sup> and (2) "The Value of Life: Estimates with Risks by Occupation and Industry", by Dr. W. Kip Viscusi<sup>6</sup>. In the Miller study, which represents his critical analysis of over 66 different analyses (by other economists) of the Human Value of Life, he deemed 47 as sound. These 47 qualifying studies yielded a statistical floor value of \$2,200,000 (in 1988 dollars). In the Viscusi study, the authors' empirical analysis of Bureau of Labor Statistics data yielded a value of life of \$8,900,000 (in 1997 dollars).

Thus, after deducting for the Human Capital component and converting to before tax dollars, the appropriate range for the intangible Human Value of Life is from a low of \$1,800,000 in 1988 dollars to a mid-point of \$8,900,000, in 1997 dollars. When converted (using the Consumer Price Index) into 2007 dollars, the range is from \$3,200,000 to \$11,500,000.

**HUMAN VALUE OF LIFE ECONOMIC IMPACT REPORT**  
**Re: Espinosa, et al. v. City and County of San Francisco, et al.**

**BIBLIOGRAPHY**

<sup>1</sup> Federal Jury Practice and Instructions 85.21

<sup>2</sup> Woods, E.A. and Metzger, C.B., "America's Human Wealth: The Money Value of Human Life", New York, Kelly, 1927. Dublin, L. and Lotka, A., "The Money Value of a Man", New York Press, 1940.

<sup>3</sup> Gillette, C.P. and Hopkins, T.D., "Federal Agency Valuations of Human Life: A Report to the Administrative Conference of the United States", April 1, 1988 - March 30, 1989.

<sup>4</sup> Schelling, T.C., "The Life You Save May Be Your Own", Problems in Public Expenditure, Brookings Institute, 1968.

<sup>5</sup> Miller, T., "The Plausible Range for the Value of Life", Journal of Forensic Economics, Vol.3. No.3 1990.

<sup>6</sup> Viscusi, K., "The Value of Life: Estimates with Risks by Occupation and Industry", Economic Inquiry, Vol. 42, No. 1, January 2004.

**Motion in Limine 4**  
**EXHIBIT B**





May 22, 2008

Peter J. Keith  
Deputy of the City Attorney  
City and County of San Francisco  
1390 Market Street, 7<sup>th</sup> Floor  
San Francisco, CA 94102-5408

Re: Espinosa, et al. v. City and County of San Francisco, et al.

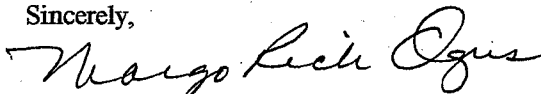
Dear Mr. Keith:

At your request, I have reviewed the May 1, 2008 report of Robert W. Johnson, in the above-reference matter. My comments are enclosed. I have noted in boldface statements taken directly from Mr. Johnson's report. My responses to each noted statement are then listed. I have enclosed, as well, a copy of my current curriculum vitae and lists of cases in which I have provided deposition and trial testimony in the last four years.

I have reviewed the Johnson report and transcript of Mr. Johnson's deposition, and the studies noted in my enclosed comments.

My hourly rate is \$350 per hour for analysis and report preparation and \$450 per hour for deposition and trial testimony.

Sincerely,

  
Margo Rich Ogus, Ph.D  
President

ECONOMIC SOLUTIONS, INC.



## **Comments on "Human Value of Life Economic Impact Report"**

### **Economists in 1968 started to use the economic methodology called Willingness-to-Pay**

A small minority of forensic economists has attempted, particularly in the past, to use economic estimates, derived from value-of-life research, to estimate the value to survivors of the lost love, care, comfort, society and moral support from a wrongful death based upon willingness-to-pay estimates of the value of human life.

### **It is basically how much people are willing to pay ... to avoid an increase in the risk of death**

Value of life estimates are derived from the results of studies which are entirely focused on other objectives. One example are analyses of the correlation between wage rates and death rates related to employment in certain occupations, since it is observed that workers agree to accept employment with increased risks of death and injury in exchange for a higher rate of compensation. Other, mainly governmental, studies evaluate of the trade-offs between the number of lives potentially saved and the cost of implementing safety enhancements, such as a traffic signal in a dangerous intersection, policies to reduce air pollution, workplace safety regulations, or improved air traffic controls.

None of these studies address the value of a particular individual's life and characteristics. None of the values derived are for the value of a deceased's life to the survivors. These hedonic estimates of the value of a human life use no data on survivors. They are not conditioned by facts about the survivors. These studies deal with prospective statistical lives, not actual identifiable deaths.

Viscusi notes that "while...the government uses (value of life) numbers to assess the prospective economic benefits of risk reduction policies, it is even more noteworthy that the government has never used these values for purposes of compensation."<sup>1</sup>

### **The summing of this measure across all people provides an estimate to a reasonable degree of economic certainty, of the intangible human value of life**

There is extensive economic literature focused on the issues which surround the use of such hedonic estimates of the value of life from willingness to pay data. These estimates of the value of life have very wide variances from study to study, and there are many methodological and empirical questions which have also been hotly debated. The objections include the following:

1. The values of human life involve very small changes in the probability of death. There is no evidence to support the assumption that such values would be accurate for much larger changes in the probability of death. Viscusi states that "Although economics has devoted substantial attention to issues generally termed the value of life; this designation is in many respects a misnomer. What is at issue is usually not the value of life itself but rather the value of small risks to life"<sup>2</sup>.

<sup>1</sup> Viscusi, W. Kip, "The Flawed Hedonic Damages Measure of Compensation for Wrongful Death and Personal Injury, Vanderbilt University, 2008

<sup>2</sup> Viscusi, W. Kip, "The Value of Life, 2005, Vanderbilt University School of Law, Law and Economics Working Paper 08-05

2. The values are estimated for individuals facing some increase in the risk of death; it is called an ex ante estimate. The wrongful death case is very different, it is ex post and the probability of death is one.
3. The value of life estimated in the willingness to pay studies is in reference to the individual undergoing the increased risk of death, not the survivors. The configuration and characteristics of survivors are not part of the data base upon which the value of a human life has been estimated. No data currently exists which purports to measure the impact on a survivor of, for example, an individual's decision about accepting an increased risk of death for increased compensation. One would expect that only a very small fraction of the additional compensation required to accept such a job would be to compensate one's survivors for the individual's death. If it is the survivors' value of the loss of the deceased from their perspective which should form the basis of the wrongful death compensation, then the willingness to pay studies have no relevance.

**This economic methodology (WTP) has in the past 20+ years been the subject of rigorous critical analysis and validation..... As a result of such thorough and extensive analysis, the Willingness-to-Pay economic methodology has become the recognized standard for quantifying the loss of care, comfort, society, consortium, etc. – the intangible human value of life**

Far from being “the recognized standard”, Viscusi writes that “valuing life has proven to be one of the most controversial areas of economics”<sup>3</sup>. He argues in a number of papers that “the use of the value-of-life literature is not appropriate in determining the amount of damages suffered by a wrongfully killed person.”<sup>4</sup> He further argues “that values from the value-of-life literature are inappropriate for use as measures of the retrospective value of a specific life.”<sup>5</sup>

A 1989 NAFE (National Association of Forensic Economics) symposium featured both proponents and opponents. A second symposium was held in 2000. Marks and Ireland wrote, in summarizing the later proceedings, that “many important changes had taken place in the 10 years between the two symposia...The positive glow of the three *Sherrod* decisions that spoke well of hedonic damages had been followed with decisions ....that spoke negatively of the concept in the same federal circuit. A number of other federal judges in other circuits and the Supreme Courts of Nebraska and West Virginia have reached decisions precluding hedonic damage testimony”.<sup>6</sup> They concluded that “it is clear that no substantial agreement on any of the ....issues has yet to be achieved.”<sup>7</sup> The court opinion in *Smith v. Ingersoll-Rand* goes further in recognizing the courts' rejection of hedonic damages testimony. “Attempts to quantify the value of human life have met considerable criticism in the literature of economics as well as in the federal court system. Troubled by the disparity of results reached in published value-of-life studies and skeptical of their underlying methodology, the federal courts which have considered expert testimony on hedonic damages in the wake of *Daubert* have unanimously held quantifications of such damages inadmissible system.”<sup>8</sup>

Ireland presented his study of court decisions and determined that “the preponderance of reported cases was against the admission of hedonic damage testimony” and that “the general trend is that hedonic damage testimony by economic experts continues to be rejected by the courts.”<sup>9</sup> He stated that “some states have

<sup>3</sup> Viscusi, W. Kip, “Misuses and Proper Uses of Hedonic Values of Life in Legal Contexts”, *Journal of Forensic Economics*, Volume XIII, No. 2

<sup>4</sup> Marks, Peter and Thomas R. Ireland, “Hedonic Damages Ten Years Later: A Symposium”, *Journal of Forensic Economics*, Volume XIII, No. 2

<sup>5</sup> *ibid*

<sup>6</sup> *ibid*

<sup>7</sup> *ibid*

<sup>8</sup> *Smith v. Ingersoll-Rand Co.*, 214 F.3d 1235, 1245 (10th Circuit 2000)

<sup>9</sup> Ireland, Thomas, R., “Recent Legal Decisions Regarding Hedonic Damages: An Update”,

ruled that intangible damages are not subject to expert testimony, regardless of the method employed (and in other states) it ..... would be permitted but the scientific merit of the hedonic damage concept becomes the central issue.”<sup>10</sup>

In Viscusi’s symposia paper, he concludes that “the uses to which the (value-of-life) estimates have been put have not been consistent with the meaning of the estimates or the purposes of compensation in tort cases. Instead, the hedonic values of life provided a mechanism for plaintiffs’ attorneys to get multimillion dollar damages numbers in front of juries in the hopes of providing a high-dollar anchor for their deliberations.”<sup>11</sup>

**In the Miller study ... he deemed 47 as sound. These 47 qualifying studies yielded a statistical floor of \$2,200,000 (in 1988 dollars). In the Viscusi study, the authors’ empirical analysis of Bureau of Labor Statistics data yielded a value of life of \$8,900,000 (in 1997 dollars).**

Clearly, a large number of studies have been performed over the years by various economists, utilizing different data sources, different methodologies, and different objectives. These studies have been utilized over the past two decades primarily to evaluate the economic impact of governmental policy decisions and regulations. The various results of these studies do not provide a “statistical floor” or even a range of reasonable outcomes. As discussed above, they should not be utilized for the purpose of valuing a loss to a survivor of a particular decedent and do not provide a reasonable estimate for that purpose.

Notwithstanding the serious concerns about the use of these results for the purpose of valuing human life in wrongful death cases, and without making a comprehensive review of all the studies, the 2004 Viscusi study, relied upon by Mr. Johnson, offers a range of value of life valuations, based on the particular variables considered and controlled. His abstract concludes that the value of life for the full sample considered is \$4.7 million.<sup>12</sup>

**Thus, after deducting for the Human Capital component and converting to before tax dollars, the appropriate range for the intangible Human Value of Life is from a low of \$1,800,000 in 1988 dollars to a mid-point of \$8,900,000, in 1997 dollars.**

Mr. Johnson initially suggests a range from \$2,200,000 to \$8,900,000. However, after his apparent (though not explained) deduction for the Human Capital component and increase for before-tax considerations, the result is an 18 percent reduction in the lower figure, but no change in the upper figure. Without a better explanation of the value placed on the decedent’s Human Capital component and the tax adjustment, it is not possible to consider the results.

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<sup>10</sup> *ibid*

<sup>11</sup> Viscusi, W. Kip, “Misuses and Proper Uses of Hedonic Values of Life in Legal Contexts”, *Journal of Forensic Economics*, Volume XIII, No. 2

<sup>12</sup> Viscusi, W. Kip, “The Value of Life: Estimates with Risks by Occupation and Industry”, *Economic Inquiry*, Vol. 42, No. 1, January 2004

**Conclusion**

Contrary to Mr. Johnson's statement, there is no consensus, no validation, and no standard recognized by economists for placing a value on human life. While less of an issue of academic discourse in recent years, among those who have offered opinions there are more opponents to the use of willingness to pay studies by economists for valuing economic loss in wrongful death cases, and fewer courts that are receptive to the testimony. The limitations of current economic tools in providing valid and useful input to the value of a survivor's loss of love, care, comfort, society, moral support, etc., is in no way an indication that such losses have no value. Unfortunately, as economists in the role of expert witnesses we need to speak from our expertise and there is no factual or foundational basis on which to testify regarding these non-pecuniary damages.